

# Notice of Allowability

Application No.

10/798,686

Examiner

Christine Sung

Applicant(s)

DIFOGGIO, ROCCO

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/24/06.
2. ☒ The allowed claim(s) is/are 1-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Response to Amendment***

1. The amendment filed on July 24, 2006 has been accepted and entered.

***Priority***

2. Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

See WO 2004/007612A1

***Allowable Subject Matter***

3. Claims 1-30 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Applicant's arguments, with respect to the Mullins reference, are persuasive.

Regarding claim 11-10, none of the prior art of record specifies a method for quantifying a weight percent of methane of a fluid down hole, namely the step of determining the weight percent of methane from the optical density of the fluid by measuring two different wavelength regions within the methane peak, along with the other claimed steps. Prior art references such as Mullins (previously cited), as well as other conventional methane detectors determine the methane concentration/weight by comparing a wavelength of radiation within the methane peak (usually the methane peak) with a peak outside the range of methane to determine the quantity of methane.

Regarding claims 11-20, similar to the above paragraph, none of the prior art of record specifies or makes obvious an apparatus for quantifying the weight percent of methane in a wellbore environment, namely the processor that determines the weight percent of methane for a

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fluid sample from the spectrometer that provides two optical density measurements at two different wavelength regions within the methane peak, along with the other claimed steps. Prior art references such as Mullins (previously cited), as well as other conventional methane detectors determine the methane concentration/weight by comparing a wavelength of radiation within the methane peak (usually the methane peak) with a peak outside the range of methane to determine the quantity of methane. Further most conventional apparatus for quantifying weight percent methane contain most of the elements, but do not disclose the claimed processor that determines the weight percent methane based on the first and second optical densities.

Regarding claim 21- 30, similar to the above paragraphs, none of the prior art of record specifies a computer readable medium in a computer, namely the executable instructions that perform the method of quantifying weight percent of methane by determining the weight percent methane from the first and second measured optical densities at two different wavelength regions within the methane peak, along with the other claimed steps. Prior art references such as Mullins (previously cited), as well as other conventional methane detectors determine the methane concentration/weight by comparing a wavelength of radiation within the methane peak (usually the methane peak) with a peak outside the range of methane to determine the quantity of methane.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Sung whose telephone number is 571-272-2448. The examiner can normally be reached on Monday- Friday 7-3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS

Christine Sung  
Examiner  
Art Unit 2884

  
OTILIA GABOR  
PRIMARY EXAMINER